

IV. MANAGEMENT GUIDELINES

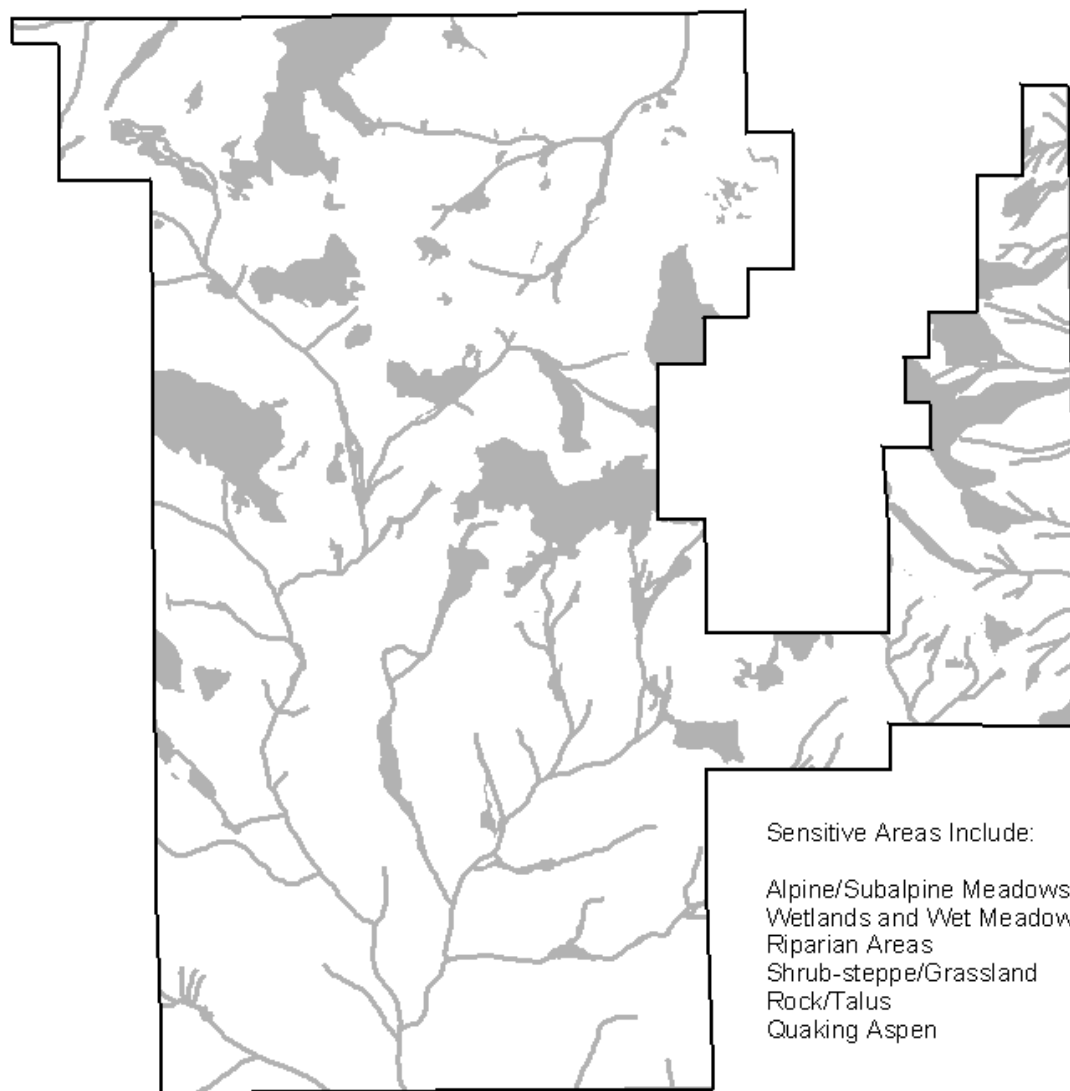
Management actions outlined in the previous chapter pertain to specific management issues. This section provides guidance for implementing those actions and for addressing future management issues.

A. Sensitive Areas

Certain portions of the NRCA have been identified that may be particularly vulnerable to impacts from public use (including grazing, a permitted use) and fire suppression activities (Figures 9 and 10, Sensitive Areas Maps). These sensitive areas include pockets of habitat within the Loomis NRCA that support or have a high probability of supporting sensitive, threatened, or endangered plant and wildlife species. Direct impacts to these areas may damage populations of such species or their habitat. Where a high potential exists for sensitive areas to be impacted by public use or fire suppression activities, high impact activities should be redirected to other locations when possible. Additionally, sensitive areas (except rock/talus/cliff habitats) are high priority areas for monitoring efforts. Habitats identified as Sensitive Areas include:

- Alpine/Subalpine Meadows – Vegetation is particularly sensitive to soil disturbance from machinery or heavy trampling. Once soil has been compacted or scrapped away, natural regeneration is significantly inhibited. Soil disturbance should be limited to the edges of these habitats as much as possible.
- Wetlands and wet meadows – Soft hydric soils are easily compacted. Soil compaction can alter vegetation dynamics and may interrupt hydrologic functions. Many of the sensitive, threatened, or endangered plant and wildlife species known or suspected in the Loomis occur in wetland and wet meadow habitats.
- Riparian habitat – Removing or crushing vegetation, and disturbing soils in riparian areas can increase erosion if stream banks are exposed. Soft hydric soils are easily compacted. Soil compaction can alter vegetation dynamics and may interrupt hydrologic functions.
- Shrub-steppe and dry grassland openings - Vegetation is particularly sensitive to soil disturbance from machinery or heavy trampling. Areas of heavy soil disturbance may become vulnerable to weedy plants and noxious weeds. Regeneration of native species is difficult. Soil disturbance should be limited to the edges of these habitats as much as possible.
- Aspen Stands – Aspen form colonies as new shoots sprout from a common system of roots. Conditions, such as overgrazing and fire suppression, may suppress aspen rejuvenation leading to an overall decline in aspen stands. Furthermore, aspen tend to grow in moist areas and the roots are vulnerable to compaction.
- Rock/talus/cliffs - These habitats support or may support a disproportionately large number of the sensitive, threatened, or endangered plant and wildlife species. While not particularly vulnerable to public use activities, substantial movement of talus or rock should be avoided where possible.

Figure 9. Sensitive Areas - North Block

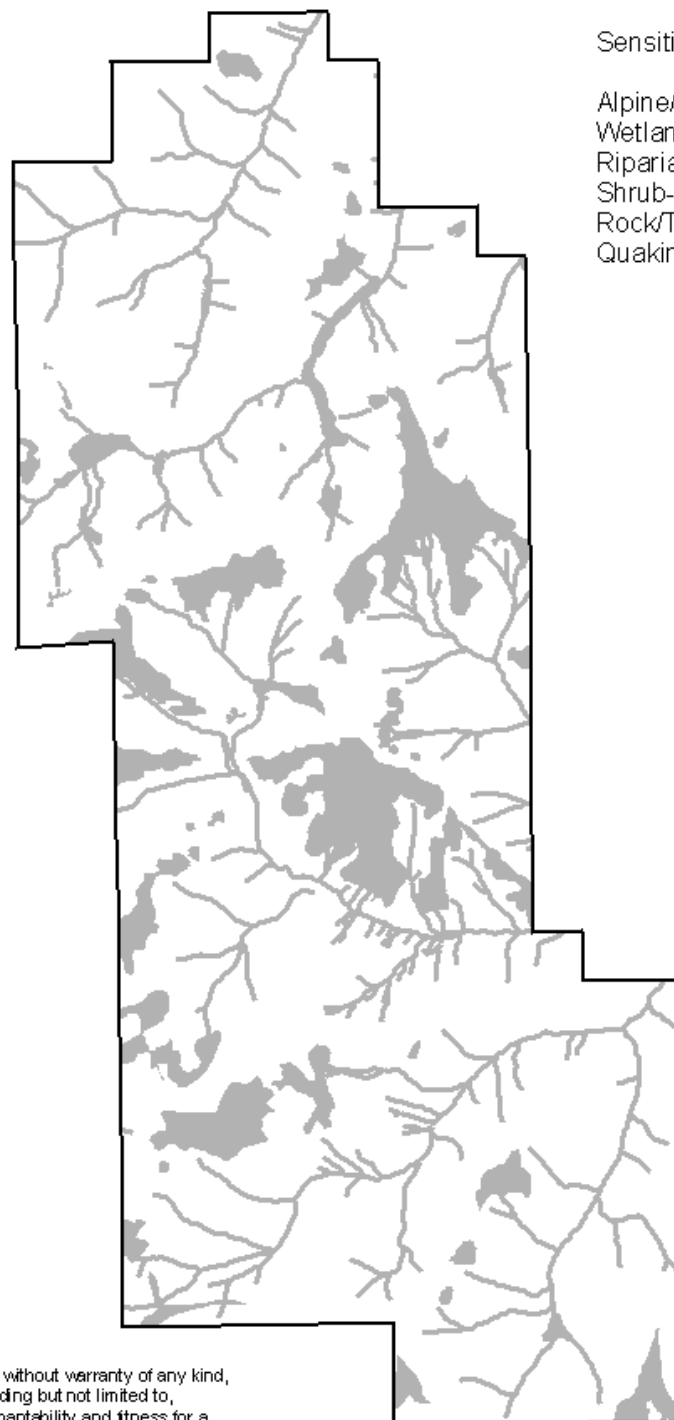


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Loomis NRCA Management Plan
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Figure 10. Sensitive Areas - South Block



Sensitive Areas Include:

Alpine/Subalpine Meadows
Wetlands and Wet Meadows
Riparian Areas
Shrub-steppe/Grassland
Rock/Talus
Quaking Aspen

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B.Fire

The Loomis NRCA is managed according to RCW 79.71 (NRCA Act) to protect natural processes and natural features. The NRCA is also subject to RCW 76.04.750 which states that “every reasonable effort will be made to suppress uncontrolled fires”. Within the NRCA fire may produce beneficial effects and maintains fire-dependent resources, however the responsibility to protect life and adjacent land is paramount.

Fire Suppression

The immediate and short-term goal is to act safely and aggressively to suppress all uncontrolled fires while using discretion to minimize impacts to ecological systems. Loomis NRCA Fire Control Priorities are as follows:

1. Protect human life.
2. Protect adjacent land.
3. Minimize resource losses (fire suppression impacts to sensitive areas) and fire costs.

Wildfire Rehabilitation

Following a wildfire, the burned area should be allowed to regenerate without human intervention. Specific restoration activities may be needed to restore areas disturbed by fire suppression activities. Post-fire revegetation will not be undertaken unless natural revegetation is impeded or slowed to such an extent that the ecological features or processes in the area will be negatively impacted. Restoration efforts will be designed based on consultation with Natural Areas Ecologists. Burned areas may need protection from livestock until a restoration plan is in place.

Refer to the Loomis NRCA Fire Suppression Plan (Appendix E) for more detail.

C.Insects and Disease

Native insects and other pathogenic organisms are part of the NRCA’s natural ecological conditions and processes. As such, intervention is not recommended when infestations and disease are the result of native organisms and natural processes. Exceptions include cases when: non-native, introduced insects or other pathogens create deleterious conditions; law (RCW 76.06.040) requires management action; or the primary features for which the NRCA was designated are jeopardized by lack of intervention.

The site will be monitored for the presence of bark beetles, satin moth and white pine blister rust and other insect and disease activity during routine site visits. If monitoring indicates substantial activity of the insects or pathogens described above, an entomologist or forest pathologist should be consulted regarding the severity of the activity and possible solutions.

Pesticides will not be used, unless necessary to meet legal requirements, in order to protect native insects, particularly pollinators for the rare plants. If white pine blister rust is found, the need for active management, including propagation and planting of resistant trees, prescribed fire or other methods to remove competing tree species, will be considered.

If monitoring indicates a need for management action, a Natural Areas Program Ecologist, in consultation with Department forest health specialists, will develop an insect and/or disease control plan. This plan will be attached as an addendum to this plan and will be implemented by the region. All management actions undertaken will be subject to obtaining necessary permits from other agencies.

D. Restoration

Restoration activities will be carried out to implement site recovery objectives in situations where allowing natural ecological and physical process to predominate would threaten the continued existence or condition of the primary features that the Loomis NRCA was intended to protect. Any ecological restoration activity should consider the following:

- Only native plant species will be used for revegetation. Exceptions may occur if a non-native species is determined to be critical for success and is not expected to persist long-term.
- When possible use plants and seeds from adjacent sites.
- Plant species selected should mimic natural plant communities and associations.
- When purchasing “native” species, find a local source and make sure that the origin of the stock supplied is from the same region and is the same variety.
- Do not use invasive native species that are likely to negatively impact adjacent native vegetation.
- Do not use “native species” that are not native to the site.
- Use soils from adjacent sites and when soils are imported, it is critical that they are sterilized to minimize the potential import of exotic weed species.

E. Public Use

The NRCA trails system was built and maintained by users. Trails need to be assessed. Improvements may include structures to protect water crossings, erosion control structures or signs. User groups have expressed an interest in helping with maintenance of the trail system. The following trail guidelines and standards are designed to protect natural resources and maintain a safe, multi-use experience. Some trails may need to be closed or re-routed.

Resource Protection – When using the NRCA trail system exercise caution when crossing areas that are wet, or have fragile plant communities (i.e. alpine meadows). Trails can be a

source of resource damage or impact if not properly designed and located on the landscape. If a trail in the NRCA is impacting a sensitive resource it will be assessed and a solution, such as structural improvements or re-routing, implemented,. Other issues include, but are not limited to, silt in streams, out-of-control campfires and trash.

Backcountry Experience –The Loomis NRCA provides a backcountry (no improvements or facilities other than trails) type of hiking and camping experience however it is not classified as a wilderness area. Minimum impact camping methods are required to maintain the rustic nature of the site. Whatever is packed in must be packed out. Stewardship of the natural resources is an important part of using the NRCA and is appreciated by all users.

Both blocks of the Loomis NRCA are at high elevations. Weather is unpredictable and may be extreme. Being prepared for inclement weather during any time of the year is an important safety consideration. Currently (2002) the trail system is poorly marked and can be easily confused with game trails. Visitors should exercise caution when navigating the NRCA and use maps that are up to date and sufficient in detail.

Trail Etiquette – When encountering users on horseback, approach them slowly and with caution. Pedestrians should step aside to allow mounted riders and animals to pass by. A startled horse may cause the rider to lose control, be bucked off or cause injury. If the animal should break free, the rider may have to pursue the animal for some time and distance before gaining control again.

Wildlife – The Loomis NRCA includes a wide array of plants and wildlife. One of the more exciting opportunities of the Loomis NRCA is to see wildlife that are not common (i.e. lynx, bears, moose, etc.). When recreating in the NRCA, users are in wildlife habitat and should exercise caution for both the safety of the user and the wildlife. Wildlife with young offspring are likely to act aggressively to protect the young. If you encounter wildlife, keep a safe distance and do not attempt get closer and do not feed them. During winter months wildlife will most likely have to exert precious energy reserves to elude any further contact. This stress during a critical period can cause mortality or poor reproduction in the spring. Please exercise caution and consideration when viewing wildlife in the NRCA.

Structures - Trailheads, sign boards, bathroom facilitates, water crossings, and cabins or cabin remnants are important for many reasons. Maintenance, and repair of these structures resulting from vandalism can be expensive. Working with users and writing grants (by volunteers and DNR staff) to obtain funding is an important part of maintaining public access and historic use of the site. Donated labor is one of the most valuable benefits of working with user groups. Structures must be approved by DNR prior to construction and implementation and shall be of rustic design and blend into the natural features of the site.

Blazing – Blaze marks are located on two sides of a tree and are made by removing a patch of bark leaving a scar that is fairly uniform in appearance. These marks are usually visible from one to the other and denote the location of the trail. Less severe methods such as a dot of paint or orange metal diamond markers (in response to comment # 29) could also be used

to mark trails. These marks need to be placed high enough so that the snow pack will not cover them in the winter. An inventory and site plan for marking trails and installing signs is a high priority. Trails will be marked by DNR staff or volunteers with written approval from NE Region or Natural Areas Staff.

Trail Standards - The following three trail types will be used to delineate trails in the Loomis NRCA. See figures 7 and 8.

Type – A – All Authorized Use Trail, All Season

<i>Maximum Clearing Width:</i>	8 feet (except roads 12 feet)
<i>Maximum Clearing Height</i>	10 feet
<i>Marking Guidelines:</i>	Signage and Blazes
<i>Structure Standards:</i>	Water Crossing, Trail Drainage and Hardening, Signage, Mileage Markers, Blazes
<i>Users:</i>	Cattle, Horses, Hikers, Snowmobiles

Discussion

This trail is maintained at our highest standard and can reasonably be expected to receive the most use. These trails are also the greatest risk to public resources and will be a priority for maintenance. These trails are also working trails that provide natural barriers for fire, corridors for herding cattle, and access for management purposes. Some areas of the trails overlap with old jeep trails and old logging roads which are kept open for emergency access.

Type – S – Summer Use Only Trail

<i>Maximum Clearing Width:</i>	varies 3-8 feet
<i>Maximum Clearing Height</i>	10 feet
<i>Marking Guidelines:</i>	Signage and Clear Path Blazing
<i>Structure Standards:</i>	Water Crossing, Trail Drainage and Hardening
<i>Users:</i>	Cattle, Horses, Hikers

Discussion

Summer Use trails also are work trails used to move livestock and provide excellent access for hikers, hunters, and equestrians. These trails are not old roads but may date back to the 1890s. Trails are rough and difficult to maneuver. These trails should be inventoried and it is very likely that portions may need to be relocated into areas that are easier to maintain and pose less risk to users and resources. Maintenance of these trails is important because they serve as fire breaks, livestock drive-trails and provide access by foot, ATV, or horse for management purposes.

Type – W – Winter Use Only

<i>Maximum Width:</i>	Approximately 46 inches
<i>Marking Guidelines:</i>	Blazing
<i>Structure Standards:</i>	No Structures, No Trail Signs
<i>Users:</i>	Snowmobiles, Snowshoe Hikers and Cross-country Skiers

Discussion

Winter Use trails are trails that have been used historically by snowmobiles and were not used outside of the winter months. These trails will remain discovery trails to meet objectives outlined in the modified Lynx Habitat Management Plan. Thus trails designated for winter use will, be kept narrow (approximately 46" inches) and will require a skilled riders and low speeds. At least 12 –18 inches of down woody debris will be retained for the first 100 - 150 feet to discourage cattle, ATV users and foot traffic outside of the winter months. The DNR will continue to work with user groups to find effective solutions to minimize inappropriate use.

Research - New research activities within the NRCA must be pre-approved by the Natural Areas Ecologist. Existing research projects will continue and will be reviewed annually by Natural Areas Program staff. Research projects will be encouraged among potential research groups, such as colleges, universities, and relevant research laboratories. Sources of funding for specific research topics will be sought and applied for, as applicable. Potential partners for research projects and/or funding will also be sought.

Research proposals must follow Natural Areas Program Research Guidelines, which are available from the Region office. Official letters of project approval or denial including any specific conditions will be issued within approximately two weeks of receipt of a proposal. Multi-year projects will be re-evaluated and researchers notified of approval or denial to continue on a yearly basis.

F. Forestry Activities

At times, in order to aid the site's ecological maintenance, restoration or enhancement, certain forestry practices may be necessary. For example, ecological thinning to restore or maintain structural conditions within forested areas may be necessary. However, in those cases, timber harvest is not the objective of the management activity, but is of secondary or tertiary importance to the stewardship objectives being pursued. It is probable that the cut trees' quality will not be merchantable. Any income that would be generated would be incidental to the forest management practice itself and will be deposited in the Natural Area Stewardship Account (RCW 79.71). Any such decision would be made only after consultation with the Natural Areas Ecologist.

G. Archaeological, Cultural and Historic Sites

The continuation of activities that are part of tribal cultural values and reserved treaty rights are provided for within federal and state law and DNR policy. Specific tribal uses or cultural sites have not been identified to date, however state Office of Archaeology and Historic Preservation records shall be reviewed prior to the implementation of any management activity. If archaeological and/or historic sites are located within the Loomis NRCA, region natural areas staff will coordinate with a region or division archaeologist and representative(s) from affected tribes to protect them.

H. Hunting

Hunting is permitted according to the rules and regulations of the Washington Department of Fish and Wildlife.

I. Roads

As stated in the land transfer deed, "The state... reserves the right to use existing and proposed roads on the property, in locations identified in the land transfer deed (one in the north block, T40RR24E, Section 34, SE ¼ and in the south block, T37R24E, Section 8, S ½ SE ¼) as Timber Harvest Roads, where reasonably necessary to manage or remove forest products or other valuable materials from nearby state trust land without charge to the trust, but the trust shall pay its share of the road maintenance and repair cost. These roads shall only be built if no other reasonable and economically feasible alternate route can be built on the adjacent trust land."

J. Regulation and Law Enforcement

Uses and activities within the NRCA not consistent with the Department's policies and legal obligations shall be considered a violation against the department. DNR's existing law enforcement policies shall apply and will be enforced by DNR as funding allows.

Enforcement measures should emphasize non-confrontational techniques and voluntary compliance. Education programs may help reduce conflicts among user groups. Where certain uses are not permitted, informing visitors where these activities are permitted may help reduce the number of violations. Because enforcement of regulations is integral to the effective implementation of recommendations made in this plan, funding for enforcement should be pursued to meet program goals.

K. Weeds

Due to the high elevation and relatively short growing season, the potential severity of weed infestations is probably limited. Some shade tolerant species may be found below the 5000 – 5500 feet elevation, including common houndstongue (*Cynoglossum officinale*) and possibly St. John's wort (*Hypericum perforatum*). Other noxious weed species with notable potential to occur in the NRCA are Canada thistle (*Cirsium arvense*), diffuse knapweed (*Centaurea diffusa*), spotted knapweed (*Centaurea maculata*), Russian knapweed (*Acroptilon repens*), and possibly other knapweed species (*Centaurea* spp.). Canada thistle is most likely to be found in wet or moist disturbed areas, while knapweeds are more likely to occur along roads, in clearcuts, and other heavily or chronically disturbed areas. In the absence of large disturbances such as fire, road construction, or logging, these are not likely to spread significantly if they do become established.

V. IMPLEMENTATION

This plan will be implemented by DNR Natural Areas staff. Most of the management actions in this plan are focused in sensitive areas that overlap with public use or heavy grazing areas. Actions will be implemented as funding becomes available and the list will be used to coordinate active recruitment of funds and support for projects. Volunteer site stewards will play an important role in maintaining an active presence at the site and conducting regular visual inspections. Implementation is contingent upon cooperation and coordination among and with user groups.

Success of the plan will depend on efforts to monitor and evaluate the NRCA and to tailor the management of the site to meet changing conditions. Success also depends on maintaining good working relationships with users, adjacent land managers, land owners and associated agencies, while carrying out the intent and requirements of the NRCA Act and Settlement Agreement.

A. Summary of Management Actions

Forest Zones and Plant Communities

Sub-alpine fir zone

- Inventory and monitor the site for whitebark pine and monitor for occurrence of white pine blister rust.
- Coordinate with North Cascades National Park (and USFS) on monitoring the spread and potential management of white pine blister rust.
- Research options and opportunities to maintain the role of fire in the ecosystem.

Douglas-fir zone

- Assess the feasibility and effectiveness of creating fuel breaks in the Douglas fir zone

Quaking Aspen Forest

- Inventory and map aspen stands and seral conditions.
- Maintain aspen component at its current approximate acreage or greater with a mix of seral conditions at landscape scale.
- Consider the use of prescribed fire or mechanical disturbance within aspen stands if necessary to maintain mixed seral conditions.
- If evidence of insect or disease activity such as satin moth is observed, consult with DNR Forest Health staff to determine the degree of threat posed and appropriate actions.
- Work with Coordinated Resource Management group to implement range management practices to deter livestock from grazing in aspen stands.

Riparian and Wetlands

- Work with permit holders to achieve the Ecosystem Standards for State-owned Agricultural and Grazing Land.
- Maintain a mix of seral conditions throughout the NRCA where wetlands are dominated by native, non-increaser species and have a mix of shrub size classes where appropriate.
- Inventory and map riparian habitats
- Assess trails where they interface with wetlands.
- Relocate or recondition trails to address impacts to natural hydrologic and geomorphic processes.

Shrub Steppe

- Inventory and map seral conditions of shrub steppe communities.
- Maintain a mix of seral conditions in shrub-steppe communities throughout the NRCA.
- Work with permit holders to achieve Ecosystem Standards.

Sub-alpine/Alpine Grassland and Shrubland

- Maintain alpine communities dominated by native, non-increaser species, with few or no introduced species.
- Maintain a mosaic of shrub/herb-dominated communities and parkland communities.
- Survey/Inventory vegetation in alpine areas.
- Avoid trail development in alpine areas.
- Refer to Sub-alpine fir zone Management Actions for reference to Whitebark pine blister rust.
- Work with permit holders to achieve Ecosystem Standards.

Rock/Talus

- Map talus areas and survey them for rare plant and wildlife species.

Harvested Areas

- Monitor weed populations and if necessary develop and implement a weed control plan.
- Provide opportunities for research.

Plant Species

Rare Plants

- Maintain Ecosystem Standards to help ensure that viable populations of rare plant taxa continue to exist, subject to natural variations.
- Survey the project site for rare plants prior to ground disturbing projects.
- Systematically inventory the NRCA for other potential occurrences of sensitive, threatened or endangered plant species.
- Work with Natural Heritage botanists to determine appropriate monitoring scheme for two-spiked moonwort.
- Revisit known occurrences of state sensitive plants at least every three years at the appropriate time of year and update their status.

Noxious Weeds

- Conduct periodic inspections of areas with high potential for weed invasion, i.e. harvested and burned areas, roads and trails.
- Map and document occurrences of noxious weeds.
- Develop and implement weed control plans that use an integrated pest management approach and focus on minimizing impacts of the control methods while effectively controlling target weeds.

Wildlife Habitat

Late Successional Forest

- Allow late successional forest characteristics to develop through natural processes and natural ranges of variability.

Grizzly Bear

- Distribute and post safety procedures for avoiding contact with grizzly bear.

Gray Wolf and Wolverine

- Coordinate with Fish and Wildlife Service, and Washington Department of Fish and Wildlife to determine trail closure dates, locations and other potential management actions.

Canada Lynx

- Coordinate with US Fish and Wildlife Service and Washington Department of Fish and Wildlife to meet lynx habitat protection goals and objectives outlined in the Modified Lynx Habitat Plan.
- Adapt management actions as additional research is provided.

Northern Goshawk

- Consider potential impacts of management and recreational activities around known and potential nest sites.

Alpine Butterflies

- Management actions are the same as those outlined for the subalpine/alpine grassland and shrubland plant communities (see the Forest Zones and Plant Communities section).

Special Interest Species

- Maintain an awareness of indicator species and their natural range of variation.
- Support Washington Department of Fish and Wildlife and the Canadian Wildlife Service efforts to monitor and maintain bighorn sheep populations.

Non-Native and Introduced Animals

- Conduct periodic inspections of the site for non-native wildlife species.
- As non-native wildlife species are discovered, sightings and disturbance to the site should be documented, and if necessary work with the Department of Fish and Wildlife to develop a control plan.

Land Use

Access

- Work with user groups to develop and install new signs with a positive message.
- Work with user groups to develop a site plan for each access point that serves permitted uses.

Recreation/Trails

- Assess trail locations and impacts to natural resources and re-route or improve trails to increase user safety and resource protection.
- Develop a trail maintenance agreement with user groups.
- Bring together user groups annually to discuss trail maintenance issues and plan maintenance projects.
- Maintain trails in accordance with trail standards and guidelines outlined in the Guidelines Chapter of this plan.
- Maintain (keep vegetation trimmed back) the portion of Fourteenmile Road that extends into the Loomis NRCA for emergency vehicle access.
- Allow spur roads to revegetate and officially abandon through Forest Practices Rules and Regulations.

Permit Range Management

- Participate in Coordinated Resource Management Meetings and the permit renewal process.
- Use signs to remind users of the importance of closing gates.
- Implement management decisions from coordinated Resource Management Meetings.

Environmental Education

- Conduct a site analysis to determine the site's capacity for outdoor environmental education.
- Identify features of educational value.
- Conduct a survey or interviews to identify environmental education needs of the local communities. Match needs appropriately with site capacity, educational opportunities and proximity to local education centers.
- Determine appropriate means such as brochures, self-guided tours, or interpretive signs for delivering the identified environmental message.
- Exhibit and distribute information on research opportunities to higher education institutions.

B.Summary of Monitoring and Research Needs

Monitoring is an examination of change over time and is used to help determine if management activities are producing the desired results. Monitoring may include simple visual inspections of plant species and plant communities every year or few years, or in the case of particularly rare or sensitive species and communities, designed monitoring plans may be warranted. Currently, some designed monitoring occurs within the NRCA in association with Resource Management Plans for permit ranges. This monitoring is designed to assess forage utilization as well as resource conditions related to HB1309 Ecosystem Standards. Natural Areas staff will coordinate with the Coordinated Resource Management group on permit range monitoring activities.

Monitoring

Visual Monitoring

- Monitor for occurrence of white pine blister rust. Coordinate with USFS.
- Monitor weed populations in disturbed areas and if necessary develop and implement a weed control plan.

Other Monitoring Needs

- Work with Natural Heritage botanists to determine appropriate monitoring scheme for two-spiked moonwort.
- Monitor status and condition of sensitive areas (aspen, wetland/riparian, shrub-steppe and alpine habitats).

Research

- Research options and opportunities to maintain the role of fire in the ecosystem.
- Fire history and ecology of the area.